

Shropshire and Staffordshire Local Flood Risk Management Strategy

Part 2: Policies and Procedures Specific to Shropshire

Draft Report, June 2014



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1. Introduction

As a Lead Local Flood Authority (LLFA), Shropshire Council has a number of statutory duties to address local flood risk under the Flood and Water Management Act 2010 and the Land Drainage Act 1991. The production of a Local Flood Risk Management Strategy (LFRMS) is one of these duties. The Flood and Water Management Act 2010 encourages collaborative working between Risk Management Authorities (RMAs) and, accordingly, Shropshire Council and Staffordshire County Council have agreed to work together to deliver the Lead Local Flood Authority (LLFA) responsibilities for both counties. We have developed the Strategy as a suite of documents and assessments that provide the overall strategic direction for the management of local flood risk in both counties. Part 1, the Group Strategy sets out our combined approach to managing flood risk from local sources whereas this document details the policies and action plan, specific to Shropshire, that outline how Shropshire Council intends to fulfil its responsibilities under these Acts. Staffordshire County Council has also produced a similar document, detailing policies and procedure specific to Staffordshire.

In developing the Local Flood Risk Management Strategy (LFRMS) for the management of local flood risk we have identified seven key objectives which are summarised below. These are explained in more detail in Section 5.2 of the Group Strategy and are aligned with the National Strategy for Flood and Coastal Erosion Risk Management (FCERM) and the corporate priorities of Shropshire Council and Staffordshire County Council's strategic plans.

- 1) Develop a strategic understanding of flood risk from all sources;
- 2) Promote effective management of drainage and flood defence systems;
- 3) Support communities to understand flood risk and become more resilient to flooding;
- 4) Manage local flood risk and new development in a sustainable manner;
- 5) Achieve results through partnership and collaboration;
- 6) Be better prepared for flood events;
- 7) Secure and manage funding for flood risk management in a challenging financial climate.

These objectives have helped to inform the development of an action plan, detailing how we intend to deliver the Local Flood Risk Management Strategy (LFRMS). The Action Plan is included in Section 4 of this document.

In developing the associated Action Plan, it is important to note that it will not be possible to deliver all potential flood risk management measures in the short term. We have, therefore, taken a proportionate approach to focus effort and investment to deliver actions where they will be most effective. To support this approach and identify priority areas, we have undertaken a county wide property count analysis together with national scale fluvial and surface water flood maps produced by the Environment Agency. This is included in Section 5.

While a Strategic Environmental Assessment (SEA) was undertaken as part of the Local Flood Risk Management Strategy (LFRMS) there is considerable uncertainty involved in strategic assessments at this level. It is therefore important that before the development of any measures and actions undertaken as part of the Local Flood Risk Management Strategy (LFRMS) that further more detailed studies are undertaken at a project level. This will help to assess the potential environmental and social impacts (including to internationally important sites) and identify any mitigation or enhancement opportunities. This may include the need to carry out specific Habitats Regulations Assessments (HRAs). It would be wise to undertake such assessments at an early stage to prevent any implementation delays or additional costs (associated with abortive work or additional avoidance and mitigation activities).

2. Policies in Relation to the Flood and Water Management Act

The *Flood and Water Management Act 2010* provides the regulatory framework for the effective management of flood risk. It outlines the duties and powers for a number of Risk Management Authorities (RMAs), including Lead Local Flood Authorities (LLFAs), the Environment Agency, Water Companies and Internal Drainage Boards (IDBs).

This section contains specific policies in relation to Shropshire Council's responsibilities, under the Flood and Water Management Act 2010 (FWMA), as Lead Local Flood Authority (LLFA). Each of the following sub-sections contains an extract from the relevant part of the Flood and Water Management Act 2010, followed by policy information explaining our intended approach to fulfil our Flood Risk Management responsibilities.

2.1. Policy 1: Investigation and Reporting of Flood Events

This policy relates to Section 19 of the Flood and Water Management Act 2010, which states:

On becoming aware of a flood in its area, a Lead Local Flood Authority (LLFA) must, to the extent that it considers it necessary or appropriate, investigate:

- *Which Risk Management Authorities (RMAs) have relevant flood risk management functions, and;*
- *Whether each of those Risk Management Authorities (RMAs) has exercised, or is proposing to exercise, those functions in response to the instance(s) of flooding.*

Where an authority carries out an investigation it must:

- *Publish the results of the investigation, and;*
- *Notify any relevant Risk Management Authorities (RMAs).*

During major flood events, it can often be difficult to identify the source of the flooding and with whom responsibility may lie. The purpose of Section 19 of the Flood and Water Management Act 2010 is to ensure that, where this uncertainty occurs, Lead Local Flood Authorities (LLFAs) assist with identifying the source(s) of flooding and notifying those Risk Management Authorities (RMAs) which have responsibilities.

When Shropshire Council becomes aware of internal property flooding, it will endeavour to investigate the source of the flooding and notify the relevant Risk Management Authorities (RMAs) which have specific responsibilities. Appropriate records will be kept to monitor the frequency of these problems. These actions will support the justification for flood risk management schemes when submitting funding applications via the Regional Flood and Coastal Committee (RFCC); refer to Section 8 of the Group Strategy for further information on the funding process.

During major flood events, when the Council could be receiving a large volume of enquiries, it may not be possible to carry out an investigation in to every reported flooding incident. On these occasions we will prioritise our response based on the associated risk to properties and infrastructure and will adopt the following approach:

We will undertake a formal investigation for locally significant flood events when one or more of the following criteria are met:

- Five or more residential properties are reported to have been internally flooded during a single flood event in one location;
- Two or more business properties are reported to have been internally flooded during a single flood event in one location, or;
- One or more items of critical infrastructure are reported to have been adversely affected during a single flood event in one location.

In addition, to meet our statutory duties for reporting the above occurrences, the following information will be published on our website, www.shropshire.gov.uk/flooding.

Flood and Water Management Act 2010
Section 19 Flood Investigations Register



Flooding Incident		Flood Risk Management Authorities	
Date	Location	With functions	Functions exercised or planned to be exercised

Figure 2-1: Example of Section 19 Flood Investigations Register

2.2. Policy 2: Register of Structures and Features (Asset Register)

This policy relates to Section 21 of the Flood and Water Management Act 2010, which states:

A Lead Local Flood Authority (LLFA) must establish and maintain-

- A register of structures or features which, in the opinion of the authority, are likely to have a significant effect on a flood risk in its area, and;*
- A record of information about each of those structures or features, including information about ownership and state of repair.*

Central to Shropshire Council's improved management of local flood risk is a better understanding of the location and condition of important flood defence and drainage assets, both on the surface and below ground. The age and condition of drainage infrastructure varies greatly, from culverts originally constructed more than 100 years ago, to purpose built sewers and flood defence systems designed to modern day standards. The availability of records for much of the older drainage assets is limited, particularly with regard to culverted watercourses. Given the size of Shropshire Council's operational area, the lack of available records poses a major challenge in relation to the management of flood risk.

It should be recognised that it may take many years to populate the asset register with this missing information and, as a consequence, we will need to take a risk-based approach. To help with this task we have undertaken an assessment of settlements at risk of flooding across Shropshire (included in Section 5 of this document) and this will be used to prioritise future data collection work. In addition, when undertaking an investigation after a flood event or drainage problem, we will obtain information in relation to any important flood risk assets that have not previously been recorded within the asset register. We will also update the asset register with details of any flood defence schemes undertaken by the council as Lead Local Flood Authority (LLFA).

In situations where asset information is required to determine suitable drainage outfalls for new development we may require the prospective developer to undertake appropriate survey work and supply this information to us so that our records can be updated.

To assist with planning for flood events, it is crucial that Risk Management Authorities (RMAs), emergency responders and communities fully understand the interactions and associated responsibilities of the drainage systems and flood defences in their area. The asset register will be used to produce Operational Flood Response Plans giving specific information on the location of important drainage and flood defence assets in a particular area. These plans will indicate specific responsibilities and actions to be taken by the various front line response teams. The plans can also identify areas where regular maintenance is critical. Typical information to be recorded may include the inspection of trash screens, the closing of penstocks and areas where temporary pumping may be required.

It is important that we engage with communities to raise awareness of these Operational Flood Response Plans. With a better understanding of the flood risk and the location of important drainage assets in their area, we aim to assist communities to be better prepared for future flood events. This may also encourage communities to take a more pro-active role in flood monitoring, and maintenance works.

For the above reasons, we will obtain and share all available flood defence and drainage asset information from other Risk Management Authorities (RMAs) and organisations. We will also set in place a process for updating this information on a regular basis.

Given our future responsibilities for the approval, adoption and maintenance of Sustainable Drainage Systems (SuDS) serving new developments, we will set up procedures for the incorporation of this data in to the Asset Register.

Currently, our Asset Register is held within Geographical Information Systems (GIS). This means that it can also be viewed in the context of a wide range of other information, such as environmental and land ownership data. Given that much of the Asset Register will be made up from third party data, which may not always be up to date, we will not be making the information available online. However, we will make the Asset Register available for public viewing, at all reasonable times, on request.

2.3. Policy 3: Designation of Structures and Features

This policy relates to Schedule 1 of the Flood and Water Management Act 2010, which includes:

Subject to conditions, a designating authority may designate a structure or a natural or man-made feature of the environment where it thinks the existence or location of the structure or feature affects flood risk.

A person may not alter, remove or replace a designated structure or feature without the consent of the responsible authority.

As part of the review of the 2007 floods it was identified that certain structures or features have the ability to affect flood risk. This can be either intended or coincidental depending on the nature or location of the asset. An example of this is a boundary wall acting as an informal flood defence by redirecting surface water away from properties which would otherwise flood. In this example, whilst the presence of the wall would clearly have an unintended but beneficial purpose in terms of flood risk, there has historically been no legal means through which to prevent its removal or alteration by its owner in the future.

To address this issue, Schedule 1 of the Flood and Water Management Act 2010 has introduced new powers that enable us to formally designate structures or features which can affect flood risk. By designating these assets, any alteration or removal by existing or future owners will require our formal consent. We will consider the need to designate existing structures or features on a case by case basis taking the implications of property flood risk in to account.

Additionally, the designation process can also be used in relation to Sustainable Drainage Systems (SuDS) serving new developments. These will become more widely used in the future with the commencement of Schedule 3 of the Flood and Water Management Act 2010 which will require all new developments to be drained by such systems. Where Sustainable Drainage Systems (SuDS) serve two or more properties, we will have a duty to adopt and maintain them to ensure they function appropriately. The duty to adopt does not apply to those parts of drainage systems which serve single properties and Schedule 3 of the Flood and Water Management Act 2010 requires that we designate these features. This will mean that they cannot be altered or removed without our prior

approval and should help ensure that the drainage of development sites will continue to operate as originally designed.

2.4. Policy 4: Role of the Sustainable Drainage Systems Approval Body

[Please note that this part of the Act is yet to be implemented. It is anticipated during 2014]

This policy relates to Schedule 3 of the Flood and Water Management Act 2010, which includes:

The approving body for a drainage system is:

- *The unitary authority or county council for the area in which it is to be constructed.*

Requirement for approval:

- *Construction work which has drainage implications may not be commenced unless a drainage system for the work has been approved by the approving body.*

Duty to adopt:

- *An approving body must adopt a drainage system which satisfies certain conditions.*

This part of the Flood and Water Management Act 2010 will, when implemented, give Shropshire Council responsibility for approving sustainable drainage applications in relation to new development. The design of these drainage systems will need to comply with national standards.

Whilst the sustainable drainage approval is separate to the planning process, it will be important for developers, Lead Local Flood Authorities (LLFAs) and local planning teams to work closely together from the outset as it is likely that drainage implications will have a bearing on site layout.

Current guidance indicates that implementation will be phased and, initially, approval will only be required for drainage systems serving major development. After three years this role will expand to cover applications for all new development.

This role not only involves the approval of drainage proposals for new development prior to construction, but also the adoption and maintenance of Sustainable Drainage Systems (SuDS) serving two or more properties. The Flood and Water Management Act 2010 also requires Shropshire Council to designate sustainable drainage features that only serve single properties (refer to Policy 3).

Shropshire Council and Staffordshire County Council have identified this role as a key area where operational efficiencies can be achieved. This will involve the creation of a Sustainable Drainage Systems (SuDS) Approval Body (SAB) administration centre in Shropshire for the processing of applications.

Given the complexity and detail associated with this aspect of the Flood and Water Management Act 2010, a Shropshire and Staffordshire Sustainable Drainage Handbook will be produced, providing the detailed requirements for applicants on the design and adoption process. Prior to completion, the scope of the SuDS Handbook forms Appendix A to this document. Once completed, the SuDS Handbook will replace the scope as Appendix A.

Further details on the design and use of Sustainable Drainage Systems SuDS can be found on the [susdrain](#) web site which is being developed by CIRIA in conjunction with partner organisations including Defra and the Environment Agency.

3. Policies in Relation to the Land Drainage Act

The *Land Drainage Act 1991* provides the regulatory framework for the effective management of land drainage. It outlines the duties and powers for a number of bodies, including Lead Local Flood Authorities (LLFAs), the Environment Agency and Internal Drainage Boards (IDBs) and Borough and District Councils (although there are none in Shropshire) in relation to overseeing the responsibilities of riparian landowners.

The Environment Agency's regulatory functions relate only to the Main River network and Internal Drainage Boards (IDBs) have similar responsibilities for the ordinary watercourses within their operational areas. The regulation of all other land drainage systems within Shropshire rests with Shropshire Council.

This section contains specific policies in relation to Shropshire Council's responsibilities, under the Land Drainage Act 1991, as Lead Local Flood Authority (LLFA). Each sub-section contains an extract from the relevant part of the Land Drainage Act 1991, followed by policy information explaining our intended approach to fulfil our regulatory responsibilities.

3.1. Policy 5: Maintaining, Improving or Constructing Works to Ordinary Watercourses

This policy relates to Section 14 of the Land Drainage Act 1991

...every local authority acting so far as may be necessary for the purpose of preventing flooding or mitigating any damage caused by flooding in their area... shall have powers to:

- *Maintain existing works;*
- *Improve any existing works;*
- *Construct new works.*

This section of the Land Drainage Act 1991 gives Shropshire Council the permissive powers it requires in order to carry out improvement and construction works. Primarily, and where appropriate, we will use these powers to assist in the undertaking of flood alleviation schemes to reduce the risk of flooding to properties.

The successful delivery of these projects will require innovative ways of working and funding, based on teamwork and trust. Collaborative working and joint funding across partner organisations will be key to maximising the return on investment in flood risk management.

Defra's introduction in 2011 of the partnership funding approach means that the ability of Lead Local Flood Authorities (LLFAs) to leverage contributions (both financial and in kind) from local partners or developers could make the difference between locally important projects going ahead or not.

Whilst it may be possible to fully fund some projects using only the mainstream dedicated flood risk funding sources such as Flood and Coastal Erosion Risk Management Grant in Aid (FCERM-GiA) or Local Levy, there will be others that require a range of funding sources to make up the total sum needed. Some projects may attract only limited funding of any kind and it is important that fundraising opportunities are maximised for more 'attractive' projects: in this way any shortfall on less attractive projects can be compensated by leveraging more than 100% funding on the higher profile ones.

As discussed in Section 7 of the Group Strategy, we will prioritise where funding is directed based on a number of factors. We aim to attract additional funding in line with this prioritisation to enable flood risk management schemes which we can deliver in partnership with other Risk Management Authorities (RMAs) where appropriate. For further information on current funding arrangements refer to Section 8 of the Group Strategy.

Where we are able to attract funding for the implementation of flood risk management schemes, we will aim to work collaboratively with landowners and community groups to deliver the most cost effective solutions. However in some cases, it may become necessary for us to use these powers in order to deliver schemes that will provide benefit, in flood risk terms, to properties and infrastructure, should landowners be uncooperative.

3.2. Policy 6: Consenting Activities relating to Ordinary Watercourses

This policy relates to Section 23 of the Land Drainage Act 1991

No person shall:

- *Erect any mill dam, weir or other like obstruction to the flow of any ordinary watercourse or raise or otherwise alter any such obstruction, or;*
- *Erect any culvert that would be likely to affect the flow of any ordinary watercourse or alter any culvert in a manner that would be likely to affect any such flow,*

Without the consent of the drainage authority concerned.

Based upon our experience to date we have found that unregulated work affecting watercourses has, in many cases, been carried out in a manner which has resulted in increased flood risk. Typical issues include:

- Flooding due to inappropriately sized culverts;
- The inability to carry out maintenance due to access restrictions;
- Increased likelihood of blockage due to poor design (e.g. blockage of trash screens, build-up of silt);
- A lack of understanding of riparian landownership responsibilities;
- A lack of records leading to accidental damage by third parties;
- A lack of inspection and monitoring of condition, or;
- Adverse effects to habitat, biodiversity and environment.

In view of this we will seek to preserve the natural state of land drainage systems and minimise the number of man-made alterations to watercourses. Any activity which may affect the flow of an ordinary watercourse will require our formal consent. This applies to both temporary and permanent works.

We will, therefore, generally be opposed to the culverting of watercourses and the construction of in channel structures unless there is no reasonable

alternative, e.g. where a new road or railway embankment is to cross a watercourse, the use of a culvert may be approved.

We would advise anybody intending to carry out works to an ordinary watercourse to contact the Shropshire Council's Flood and Water Management Team for advice. Further details regarding the consenting procedure are available on our website, www.shropshire.gov.uk/flooding.

3.3. Policy 7: Enforcement Activities relating to Ordinary Watercourses

This policy relates to [Sections 21, 24 and 25 of the Land Drainage Act 1991](#)

- **Section 21:** *Enforcement of obligations to repair watercourses, bridges, etc;*
- **Section 24:** *Contraventions of prohibition on obstructions etc. (powers to remove unconsented works;*
- **Section 25:** *Powers to require works for maintaining flow of watercourse.*

Under common law, riparian landownership is a legal term given to a landowner who owns land adjacent to a watercourse (river, stream, ditch etc.). To reduce the risk of flooding, riparian landowners are responsible for maintaining the flow of water through their land and obtaining prior approval before carrying out any alterations.

The Land Drainage Act 1991 provides Shropshire Council with permissive powers to carry out regulatory activities in relation to ordinary watercourses. Issues which may result in the Council taking enforcement action include:

- The requirement to carry out repairs;
- The requirement to remove or modify unconsented works, or;
- The requirement to undertake routine maintenance to maintain the flow of water.

Due to the permissive nature of our powers under the Land Drainage Act 1991 we will, when an issue is brought to our attention, take a risk based approach when determining whether enforcement action should be taken. There are many factors that may influence our decision, but key issues include:

- The potential for internal flooding of residential / commercial buildings;
- The potential for flooding of important infrastructure, and;
- The potential for adverse environmental effects.

We will endeavour to resolve the majority of issues through cooperation with riparian landowners, avoiding the need for enforcement procedures to be taken.

In addition to powers under the Land Drainage Act 1991, Shropshire Council as Highway Authority, has powers under the Highways Act 1980 in relation to flooding and drainage affecting the public highway. There are also common law responsibilities for landowners to maintain roadside ditches and watercourses. See Section 2.4 of the Group Strategy for further information.

4. Action Plan

This action plan sets out both county wide measures and specific actions which we will pursue to mitigate and reduce the identified risk of flooding within Shropshire.

Our ability to deliver these actions will be influenced by the availability of funding from government and other sources. To mitigate this risk we will continue to explore opportunities for further collaborative working with Staffordshire County Council and other organisations.

We have taken a proportionate approach to focus effort and investment to deliver actions where they will be most effective. Some measures will be most effective where they are developed over the long term and delivered across the whole county. For example, policy or education measures work best at this scale. Some measures, however, may be location specific and will work best when delivered at a ward, community or parish scale.

Table 4-1, describes the general, long term or policy measures that we have put in place to achieve our objectives. There are a number of measures already being delivered that will reduce or manage flood risk, these have been included in the table.

Table 4-1: Measures Planned to Achieve our Objectives

Objective	Actions to be taken to deliver our objective
<p>1. Develop a strategic understanding of flood risk from all sources</p>	<p>Our Local Flood Risk Management Strategy (LFRMS) makes it clear that the management of flood risk is the responsibility of everyone, not solely the Risk Management Authorities (RMAs) identified by the Flood and Water Management Act 2010. To deliver this objective we should continue to:</p> <ul style="list-style-type: none"> • Make the public aware of our Local Flood Risk Strategy (LFRMS) and associated responsibilities and procedures through our website, public consultation and awareness events; • Use the settlement risk assessment to provide a solid evidence base for prioritising future activities; • Work collaboratively with Staffordshire County Council to develop a consistent approach to systems and procedures; • Keep flood incident data up to date and share this information with other Risk Management Authorities (RMAs); • Update and improve the Asset Register and establish effective regimes to share information with other Risk Management Authorities (RMAs); • Report and investigate future flood incidents which will improve the understanding of flooding; • Produce surface water management plans for significant flood risk areas. Each surface water management plan will identify issues at a local level, allowing partner organisations and communities to identify problems and empower them to take action; • Develop a process for the creation of the Sustainable Drainage Systems (SuDS) Approval Body (SAB) which will play an important part in increasing our knowledge of local flood risk within the county and will enable us to promote sustainable development. This will include the establishment of a shared administration centre based in Shropshire for the processing of our Sustainable Drainage Applications.

Objective	Actions to be taken to deliver our objective
<p>2. Promote effective management of drainage and flood defence systems</p>	<p>Using our powers under both the Land Drainage Act 1991 and Flood and Water Management Act 2010, we will continue to:</p> <ul style="list-style-type: none"> • Preserve the natural state of land drainage systems and minimise the number of man-made alterations to watercourses; • Work with landowners to reduce the impact of flooding due to changes in agricultural land management practices; • Take a risk based approach when considering the need for enforcement to be taken with regard to repairs, modifications and maintenance of watercourses; • Resolve the majority of issues through cooperation with riparian landowners; • Work closely with Risk Management Authorities (RMAs) and local communities to take a proactive role in making riparian landowners aware of their responsibilities around maintaining drainage infrastructure; • Develop a better understanding of the location and condition of important flood defence and drainage assets, both on the surface and below ground, using a risk based approach; • Obtain information in relation to any important flood risk assets that have not previously been recorded within the Register of Structures and Features when undertaking an investigation after a flood event or drainage problem; • Update the Register of Structures and Features with details of any flood defence schemes undertaken by the council as Lead Local Flood Authority (LLFA); • Obtain and share (where appropriate) all available flood defence and drainage asset information from our Highways Teams, Risk Management Authorities (RMAs) and other organisations and provide advice on assets that are considered to require a higher level of maintenance due to their importance or poor condition; • Set in place a process for updating this information on a regular basis; • Set up procedures for the incorporation of data in relation to approved Sustainable Drainage Systems (SuDS) on to the Register of Structures and Features; • Designate Sustainable Drainage Systems (SuDS) serving single properties so that property owners will be required to seek approval from the council when wishing to carry out any works that may affect the performance of these systems.

Objective	Actions to be taken to deliver our objective
<p>3. Support communities to understand flood risk and become more resilient to flooding.</p> <p>(see also Objective 6, “Be better prepared for flood events” below)</p>	<p>The Council will:</p> <ul style="list-style-type: none"> • Make the public aware of our Local Flood Risk Management Strategy (LFRMS), associated responsibilities and procedures through our website, public consultation and awareness events; • In developing our Register of Structures and Features, gain an improved understanding of the interactions between the various drainage systems that drain communities located in flood risk areas; • Engage with communities so as to raise awareness of the drainage assets in their area to assist those communities to be better prepared for future flood events; • Encourage communities to take a more pro-active role in flood monitoring and maintenance works; • Work with local communities which have been affected by flooding to promote local capital schemes to reduce the risk of flooding.
<p>4. Manage local flood risk and new development in a sustainable manner</p>	<p>We expect to have a statutory duty to approve all flood risk assessment and drainage strategies for new developments when <i>Schedule 3 of the Flood and Water Management Act 2010</i> is implemented. Commencement is currently anticipated during 2014 and to support this role we will:</p> <ul style="list-style-type: none"> • Preserve the natural state of land drainage systems and minimise the number of man-made alterations to watercourses; • Encourage developers, statutory consultees and local planning teams to work closely with the Sustainable Drainage System (SuDS) Approving Body (SAB) from the outset as it is likely that drainage implications will have a bearing on site layout; • Continue to work collaboratively with Staffordshire County Council with regard to the processes required to administer and determine sustainable drainage applications; • Prepare a Sustainable Drainage System (SuDS) handbook collaboratively with Staffordshire County Council which will provide guidance for developers on the design and adoption process; • Promote sustainable drainage systems which provide green infrastructure, require minimal excavation and ongoing maintenance and also avoid the need for major and disruptive replacement works;

Objective	Actions to be taken to deliver our objective
	<ul style="list-style-type: none"> • Manage flood risk and drainage of new development such that no new flood risk is created and, wherever possible, opportunities to reduce flood risk are taken through early engagement with developers; • Manage local flood risk using a risk-based and evidence-based programme, incorporating proportionate and practical measures taking into account the effects of climate change; • Seek to achieve multi-beneficial solutions, integrating flood risk management techniques alongside sustainable development and social and environmental benefits to enhance the natural environment; • Continue to act as a non-statutory consultee to the planning process to advise on matters regarding local flood risk management and surface water drainage; • Continue to work with Local Planning Teams to provide advice on local flooding matters and assist with the development of policies that ensure that the type and quantity of development is commensurate with the risk of flooding as determined through this Strategy.
<p>5. Achieve results through partnership and collaboration</p>	<p>To achieve operational efficiencies we have agreed to work together with Staffordshire County Council to deliver a collaborative approach towards flood risk management. In support of this work we will also endeavour to form further partnerships and collaborative arrangements with other organisations and individuals to promote the effective management of flood risk across our operational areas. Through this approach we will:</p> <ul style="list-style-type: none"> • Fulfil our role as Lead Local Flood Authority (LLFA) in accordance with the spirit of the Flood and Water Management Act 2010; • Seek to achieve common objectives based on a culture of partnering and trust and sharing of ideas and resources; • Seek to support other functions such as community resilience, emergency planning and climate change and adaptation strategies; • Develop an approach to partnership with other Risk Management Authorities (RMAs) based on strategic overview as well as local scheme delivery to ensure that the appropriate bodies and organisations are present at the appropriate time; • Establish a governance structure to provide appropriate scrutiny of the progress of this strategy and effective engagement between <i>Regional Flood and Coastal</i>

Objective	Actions to be taken to deliver our objective
	<p><u>Committees</u> (RFCCs), partner organisations and community groups;</p> <ul style="list-style-type: none"> • Work with landowners, Parish Councils, the National Farmers Union (NFU), Country Land and Business Association (CLA) and other similar organisations to promote changes in agricultural land management practices, which can reduce the impact of flooding and provide opportunities to incorporate ecological benefits.
<p>6. Be better prepared for flood events</p>	<p>We will improve the capability of front line response teams and local communities by:</p> <ul style="list-style-type: none"> • Producing Operational Flood Response Plans, giving specific information on the location of important drainage and flood defence assets in a particular area. Typical information to be recorded may include the inspection of trash screens, the closing of penstocks and areas where temporary pumping may be required; • Identifying areas where regular maintenance of drainage assets is critical; • Engaging with communities to raise awareness of the Operational Flood Response Plans to give a better understanding of the flood risk and the location of important drainage assets in their area; • Working with Risk Management Authorities (RMAs) and emergency planning teams to engage with local communities, parish councils and businesses to encourage and support them to take appropriate local action to prepare for flooding. This will include the formation of local flood action groups and the preparation of community flood plans.

Objective	Actions to be taken to deliver our objective
<p>7. Secure and manage funding for flood risk management in a challenging financial climate</p>	<p>Defra’s introduction in 2011 of the partnership funding approach means that the ability of Lead Local Flood Authorities (LLFAs) to leverage contributions (both financial and in kind) from local partners or developers could make the difference between locally important projects going ahead or not. Whilst it may be possible to fully fund some projects using only the mainstream dedicated flood risk funding sources such as Flood Defence Grant in Aid (FDGiA) or Local Levy, there will be others that require a range of funding sources to make up the total sum needed.</p> <p>Working with this framework we will strive to:</p> <ul style="list-style-type: none"> • Maximise the return on investment for flood risk management through collaborative working and joint funding across partner organisations; • Find innovative ways of working and funding, based on teamwork and trust to assist with the successful delivery of Flood Risk Management measures; • Maximise external fundraising opportunities for all projects such that more flood risk management projects can be delivered in the long term; • Target funding based on a prioritised approach; • Actively explore opportunities to jointly deliver flood risk management schemes in partnership with other Risk Management Authorities (RMAs); • Attract funding for the implementation of flood risk management schemes by working collaboratively with landowners and community groups to deliver the most cost effective solutions.

5. Preliminary Assessment of Properties at Risk of Flooding

We have used the most up to date national scale flood maps, available at the time of producing this strategy, to assist with prioritising our resources when planning for the management of flood risk. This information, together with other flood studies as outlined in Appendix C of the Group Strategy, will assist with the risk based approach outlined in this strategy. In some circumstances we will also need to take other factors and information in to account when prioritising limited resources.

It should be noted that the values included within Table 5.1 are approximate, and only provide an indication of potential flood risk to residential properties to the majority of major settlements in Shropshire. Although we have listed the settlements using the 1 in 100 year surface water flood risk data from the Updated Flood Map for Surface Water, we will also consider the impact of fluvial flooding when reviewing our future work activities.

Table 5.1 – Preliminary Assessment of Properties at Risk of Flooding in Shropshire

* Note: the number of properties shown at risk in the following table is based on national scale flood mapping. Figures are approximate, and provide an indication of potential flood risk to residential properties to the majority of major settlements in Shropshire. We have ranked the settlements using the 1 in 100 year surface water flood risk data from the Updated Flood Map for Surface Water.

Settlement	Total Number of Properties	Flood Forum Area	Number of Properties at Risk*							
			Pluvial (surface water)				Fluvial (watercourses)			
			30 year		100 year		Flood Zone 3		Flood Zone 2	
			Total Number	Percentage	Total Number	Percentage	Total Number	Percentage	Total Number	Percentage
Shrewsbury	24877	Shrewsbury	109	0.44	484	1.95	772	3.10	1250	5.02
Oswestry	7037	North West Shropshire	112	1.59	267	3.79	12	0.17	15	0.21
Bridgnorth	4618	Lower Severn Corridor	111	2.40	249	5.39	145	3.14	199	4.31
Ludlow	4120	Coverdale and Clee Hill	54	1.31	164	3.98	51	1.24	115	2.79
Church Stretton	1546	South West Shropshire	72	4.66	125	8.09	170	11.00	210	13.58
Shifnal	2133	Shifnal and Albrighton	24	1.13	73	3.42	60	2.81	78	3.66
Much Wenlock	623	Lower Severn Corridor	40	6.42	70	11.24	0	0.00	0	0.00

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* Note: the number of properties shown at risk in the following table is based on national scale flood mapping. Figures are approximate, and provide an indication of potential flood risk to residential properties to the majority of major settlements in Shropshire. We have ranked the settlements using the 1 in 100 year surface water flood risk data from the Updated Flood Map for Surface Water.

Settlement	Total Number of Properties	Flood Forum Area	Number of Properties at Risk*							
			Pluvial (surface water)				Fluvial (watercourses)			
			30 year		100 year		Flood Zone 3		Flood Zone 2	
			Total Number	Percentage	Total Number	Percentage	Total Number	Percentage	Total Number	Percentage
Bayston Hill	1587	Shrewsbury	16	1.01	61	3.84	0	0.00	0	0.00
Whitchurch	3554	North East Shropshire	25	0.70	61	1.72	103	2.90	209	5.88
Market Drayton	4180	North East Shropshire	7	0.17	47	1.12	48	1.15	67	1.60
Albrighton	1630	Shifnal and Albright	18	1.10	44	2.70	2	0.12	8	0.49
Ellesmere	1354	North West Shropshire	10	0.74	43	3.18	85	6.28	106	7.83
Broseley	1524	Lower Severn Corridor	19	1.25	39	2.56	0	0.00	0	0.00
Highley	1331	Lower Severn Corridor	2	0.15	35	2.63	0	0.00	0	0.00
Weston Rhyn	638	North West Shropshire	10	1.57	24	3.76	0	0.00	0	0.00

Table 5.1 – Preliminary Assessment of Properties at Risk of Flooding in Shropshire

* Note: the number of properties shown at risk in the following table is based on national scale flood mapping. Figures are approximate, and provide an indication of potential flood risk to residential properties to the majority of major settlements in Shropshire. We have ranked the settlements using the 1 in 100 year surface water flood risk data from the Updated Flood Map for Surface Water.

Settlement	Total Number of Properties	Flood Forum Area	Number of Properties at Risk*							
			Pluvial (surface water)				Fluvial (watercourses)			
			30 year		100 year		Flood Zone 3		Flood Zone 2	
			Total Number	Percentage	Total Number	Percentage	Total Number	Percentage	Total Number	Percentage
Bishop's Castle	626	South West Shropshire	9	1.44	23	3.67	0	0.00	0	0.00
Whittington	462	North West Shropshire	5	1.08	21	4.55	0	0.00	0	0.00
St Martins	712	North West Shropshire	8	1.12	19	2.67	0	0.00	0	0.00
Pontesbury	570	Mid West Shropshire	11	1.93	18	3.16	0	0.00	0	0.00
Minsterley	552	Mid West Shropshire	2	0.36	17	3.08	14	2.54	24	4.35
Claverley	260	Lower Severn Corridor	6	2.31	15	5.77	0	0.00	0	0.00
Wem	2269	North East Shropshire	8	0.35	14	0.62	1	0.04	19	0.84
Worthen	141	Mid West Shropshire	9	6.38	14	9.93	3	2.13	17	12.06

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			Pluvial (surface water)				Fluvial (watercourses)			
			30 year		100 year		Flood Zone 3		Flood Zone 2	
			Total Number	Percentage	Total Number	Percentage	Total Number	Percentage	Total Number	Percentage
Ditton Priors	164	Lower Severn Corridor	6	3.66	13	7.93	0	0.00	0	0.00
Knowbury	104	Coverdale and Clee Hill	12	11.54	13	12.50	0	0.00	0	0.00
Alveley	523	Lower Severn Corridor	3	0.57	12	2.29	0	0.00	0	0.00
Cleobury Mortimer	926	Lower Severn Corridor	5	0.54	12	1.30	0	0.00	0	0.00
Gobowen	1060	North West Shropshire	6	0.57	11	1.04	93	8.77	100	9.43
Bomere Heath	488	Severn Tributaries	3	0.61	9	1.84	0	0.00	0	0.00
Hanwood	255	Mid West Shropshire	3	1.18	8	3.14	0	0.00	5	1.96
Hinstock	199	North East Shropshire	1	0.50	7	3.52	0	0.00	0	0.00

Table 5.1 – Preliminary Assessment of Properties at Risk of Flooding in Shropshire

* Note: the number of properties shown at risk in the following table is based on national scale flood mapping. Figures are approximate, and provide an indication of potential flood risk to residential properties to the majority of major settlements in Shropshire. We have ranked the settlements using the 1 in 100 year surface water flood risk data from the Updated Flood Map for Surface Water.

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			Pluvial (surface water)				Fluvial (watercourses)			
			30 year		100 year		Flood Zone 3		Flood Zone 2	
			Total Number	Percentage	Total Number	Percentage	Total Number	Percentage	Total Number	Percentage
Snailbeach	96	Mid West Shropshire	5	5.21	7	7.29	0	0.00	0	0.00
All Stretton	130	South West Shropshire	0	0.00	6	4.62	7	5.38	9	6.92
Bucknell	284	South West Shropshire	6	2.11	6	2.11	22	7.75	49	17.25
Pant / Llanymynech	559	Severn Tributaries	3	0.54	6	1.07	0	0.00	0	0.00
Prees Higher Heath	354	North East Shropshire	1	0.28	6	1.69	0	0.00	0	0.00
Westbury	216	Severn Tributaries	5	2.31	6	2.78	10	4.63	16	7.41
Longden	116	Mid West Shropshire	2	1.72	5	4.31	0	0.00	0	0.00
Aston on Clun	94	South West Shropshire	2	2.13	4	4.26	7	7.45	8	8.51

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			Pluvial (surface water)				Fluvial (watercourses)			
			30 year		100 year		Flood Zone 3		Flood Zone 2	
			Total Number	Percentage	Total Number	Percentage	Total Number	Percentage	Total Number	Percentage
Acton Burnell	64	Mid West Shropshire	0	0.00	3	4.69	1	1.56	1	1.56
Bicton	144	Severn Tributaries	2	1.39	2	1.39	0	0.00	0	0.00
Brockton	120	Lower Severn Corridor	2	1.67	2	1.67	5	4.17	10	8.33
Cleehill	335	Coverdale and Clee Hill	2	0.60	2	0.60	0	0.00	0	0.00
Clive	105	North East Shropshire	2	1.90	2	1.90	0	0.00	0	0.00
Clun	336	South West Shropshire	1	0.30	2	0.60	10	2.98	18	5.36
Clunton	56	South West Shropshire	1	1.79	2	3.57	11	19.64	14	25.00
Conover	178	Mid West Shropshire	0	0.00	2	1.12	0	0.00	0	0.00

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			Pluvial (surface water)				Fluvial (watercourses)			
			30 year		100 year		Flood Zone 3		Flood Zone 2	
			Total Number	Percentage	Total Number	Percentage	Total Number	Percentage	Total Number	Percentage
Craven Arms	795	South West Shropshire	0	0.00	2	0.25	32	4.03	47	5.91
Ford	107	Mid West Shropshire	2	1.87	2	1.87	2	1.87	2	1.87
Sheriffhales	61	Shifnal and Albright	0	0.00	2	3.28	0	0.00	0	0.00
West Felton	357	North West Shropshire	0	0.00	2	0.56	0	0.00	0	0.00
Buildwas	63	Lower Severn Corridor	1	1.59	1	1.59	0	0.00	0	0.00
Burford	354	Coverdale and Clee Hill	1	0.28	1	0.28	2	0.56	5	1.41
Cosford Airfield	284	Shifnal and Albright	0	0.00	1	0.35	0	0.00	0	0.00
Cressage	309	Lower Severn Corridor	0	0.00	1	0.32	0	0.00	1	0.32

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			Pluvial (surface water)				Fluvial (watercourses)			
			30 year		100 year		Flood Zone 3		Flood Zone 2	
			Total Number	Percentage	Total Number	Percentage	Total Number	Percentage	Total Number	Percentage
Dorrington	198	Mid West Shropshire	1	0.51	1	0.51	0	0.00	0	0.00
Eardington	110	Lower Severn Corridor	1	0.91	1	0.91	0	0.00	0	0.00
Hodnet	156	North East Shropshire	1	0.64	1	0.64	1	0.64	1	0.64
Lydbury North	119	South West Shropshire	1	0.84	1	0.84	0	0.00	0	0.00
Prees	182	North East Shropshire	0	0.00	1	0.55	1	0.55	1	0.55
Shawbury	849	North East Shropshire	0	0.00	1	0.12	8	0.94	10	1.18
Tilstock	138	North East Shropshire	0	0.00	1	0.72	0	0.00	0	0.00
Ackleton	46	Shifnal and Albright	0	0.00	0	0.00	0	0.00	0	0.00

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			Pluvial (surface water)				Fluvial (watercourses)			
			30 year		100 year		Flood Zone 3		Flood Zone 2	
			Total Number	Percentage	Total Number	Percentage	Total Number	Percentage	Total Number	Percentage
Adderley	85	North East Shropshire	0	0.00	0	0.00	0	0.00	0	0.00
Ashford Carbonell	5	Coverdale and Clee Hill	0	0.00	0	0.00	0	0.00	0	0.00
Baschurch	397	North West Shropshire	0	0.00	0	0.00	0	0.00	0	0.00
Cheswardine	193	North East Shropshire	0	0.00	0	0.00	0	0.00	0	0.00
Childs Ercall	166	North East Shropshire	0	0.00	0	0.00	0	0.00	0	0.00
Chirbury	9	Mid West Shropshire	0	0.00	0	0.00	1	11.11	1	11.11
Cockshutt	179	North West Shropshire	0	0.00	0	0.00	0	0.00	0	0.00
Doddington	62	Lower Severn Corridor	0	0.00	0	0.00	0	0.00	0	0.00

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			Pluvial (surface water)				Fluvial (watercourses)			
			30 year		100 year		Flood Zone 3		Flood Zone 2	
			Total Number	Percentage	Total Number	Percentage	Total Number	Percentage	Total Number	Percentage
Dudleston Heath	66	North West Shropshire	0	0.00	0	0.00	0	0.00	0	0.00
Harmer Hill	64	North West Shropshire	0	0.00	0	0.00	0	0.00	0	0.00
Homer	16	Lower Severn Corridor	0	0.00	0	0.00	0	0.00	0	0.00
Llanyblodwel	20	North West Shropshire	0	0.00	0	0.00	7	35.00	8	40.00
Lythbank	5	Mid West Shropshire	0	0.00	0	0.00	0	0.00	0	0.00
Myddle	131	North West Shropshire	0	0.00	0	0.00	0	0.00	7	5.34
Nescliffe	87	Shrewsbury	0	0.00	0	0.00	0	0.00	0	0.00
Onibury	32	Coverdale and Clee Hill	0	0.00	0	0.00	0	0.00	0	0.00

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			Pluvial (surface water)				Fluvial (watercourses)			
			30 year		100 year		Flood Zone 3		Flood Zone 2	
			Total Number	Percentage	Total Number	Percentage	Total Number	Percentage	Total Number	Percentage
RAF Tern Hill	310	North East Shropshire	0	0.00	0	0.00	0	0.00	0	0.00
Rosehill	53	North East Shropshire	0	0.00	0	0.00	0	0.00	0	0.00
Ruyton-XI-Towns	323	North West Shropshire	0	0.00	0	0.00	0	0.00	3	0.93
Trefonen	160	North West Shropshire	0	0.00	0	0.00	0	0.00	0	0.00
Wistanswick	20	North East Shropshire	0	0.00	0	0.00	0	0.00	0	0.00
Woore	250	North East Shropshire	0	0.00	0	0.00	0	0.00	0	0.00
Worfield	8	Shifnal and Albright	0	0.00	0	0.00	1	12.50	1	12.50

Appendix A – Shropshire and Staffordshire SuDS Handbook

Shropshire and Staffordshire SuDS Handbook – Scope

Working collaboratively, Shropshire Council and Staffordshire County Council will create a single SuDS Approval Body (SAB) representing both Lead Local Flood Authorities (LLFAs). In order to facilitate this new role, the Shropshire and Staffordshire SuDS Handbook, which provides prospective developers with specific requirements on the use of SuDS as part of all new development within Shropshire, will be produced.

Although the Government is producing new National SuDS Standards, SuDS Approval Bodies, working together with Local Planning Authorities, may set local requirements for planning permission that have the effect of more stringent requirements than the National Standards. The SuDS Handbook will set out specific local information and requirements / conditions, including:

- the relationship between the processes of the SuDS Approval Body, the Local Planning Authority and other regulatory bodies;
- the need for early engagement between all parties;
- SuDS application validation / submission requirements;
- local constraints / design requirements;
- layout requirements;
- 'standard details';
- issues regarding viability
- the process for evaluation and approval;
- the process for adoption and maintenance, and;
- enforcement procedures.

The Shropshire and Staffordshire SuDS Handbook will be completed prior to the implementation of Schedule 3 of the Flood and Water Management Act 2010.